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COMMITTEE OF EXPERTS ON THE
TRANSPORT OF DANGEROUS GOODS

Sub-Committee of Experts on the
Transport of Dangerous Goods
(Thirteenth session,
Geneva, 7-17 July 1997,
agenda item (3 (d))

DRAFT AMENDMENTS TO THE MODEL REGULATIONS

Other draft amendments

Revised definition for aerosols, Class 2

Transmitted by the Expert from Germany

Introduction

Special Provision 190 of the "List of dangerous goods most commonly carried" against the entry 1950 AEROSOLS gives the definition for such articles:

> "Aerosols, this means the aerosols dispensers, are any non-refillable receptacles meeting the requirements of 7.2.2, made of metal, glass or plastics and containing a gas compressed, liquefied or dissolved under pressure, with or without a liquid, paste or powder, and fitted with a release device allowing the contents to be ejected as solid or liquid particles in suspension in a gas, as a foam, paste or powder or in a liquid state or in a gaseous state."

In Germany the re-use of aerosols under special conditions has been allowed for a few years. The experience during these years shows that under these conditions there is no lack of safety by refilling and reusing aerosols which are designed to be filled and used for more than one time.

An exemption for the transport by road and rail has been granted by the competent authority in Germany - Ministry of Transport (BMV), Bonn - under the following conditions:

The refilling of aerosols is allowed, provided before every refilling the subsequent conditions are fulfilled:

1. It is allowed only to refill those aerosols, which the same filling plant before has filled. The filling plant must be identifiable by special markings on the aerosol.

2. The recipe-original (active substance, propellant and pressure) of each refilled content must be identical with that of the first filling.

3. The aerosols must not show any visible indications of outer corrosion or of permanent form-changes. This has to be checked by an expert.

4. The aerosols must be gas-tight at an interior-pressure of 1.2 MPa. This must be determined through pressure-examination with air or inert gas before the refilling.

5. Each aerosol must be gas-tight after the refilling. This has to be determined through examination according to marginal 1292 of the RID or marginal 3292 Annex A to the ADR by the filling plant which has finally filled the aerosols.

Proposal

For the above-mentioned reasons we propose to make the following amendments to the Recommendations on the Transport of Dangerous Goods:

- Change Special Provision 190, first sentence: "Aerosols, this means the aerosol dispensers, are usually non refillable receptacles meeting the requirements of 7.2.2, made of metal, glass or plastics ..."

- Add a new Special Provision XYZ against the entry "1950 AEROSOLS" with the following wording:

  XYZ The refilling of aerosols is allowed, with the approval of the competent authority of the state of origin, provided before every refilling the subsequent conditions are fulfilled:
  It is allowed only to refill those aerosols, which the same filling plant before has filled. The filling plant must be identifiable by special markings on the aerosol. The recipe-original (active substance, propellant and pressure) of each refilled content must be identical with that of the first filling. The aerosols must not show any visible indications of outer corrosion or of permanent form-changes; this has to be checked by an expert. The aerosols must be gas-tight at an interior-pressure of 1.2 MPa; this must be determined through pressure-examination with air or inert gas before the refilling. Each aerosol must be gas-tight after the refilling; this has to be checked by the filling plant using an adequate test procedure (e.g. examination according to marginal 1292 of the RID or marginal 3292 Annex A to the ADR).

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GLOBAL HARMONIZATION OF SYSTEMS OF CLASSIFICATION AND LABELLING OF CHEMICALS

Physical hazards

Implementation of Agenda 21
Ammonium nitrate and ammonium nitrate fertilizers
Supplement to document ST/SG/AC.10/C.3/R.749

Transmitted by the Expert from Germany

Introduction

Obviously document ST/SG/AC.10/C.3/R.749 on ammonium nitrate and ammonium nitrate fertilizers has caused some misunderstandings. This supplement is aimed to clarify the purpose and the scope of the proposal.

Ammonium nitrate and ammonium nitrate fertilizers constitute a special group of substances. The principle of assigning ammonium nitrate and ammonium nitrate fertilizers to UN Numbers and Classes according to the chemical composition meets safety requirements and industrial needs as well and shall not be questioned. UN Number 2072 was lacking in document ST/SG/AC.10/C.3/R.749 by mistake.

On the other hand, ammonium nitrate and ammonium nitrate fertilizers might show two properties which are not sufficiently covered by the common tests and criteria for physical hazards, namely:

- certain explosive properties
- self-sustaining exothermic decomposition

A globally harmonized classification system should offer suitable test methods and criteria to establish experimentally - if necessary - whether these properties are given or not. A suitable detonation test (4" steel tube with 500 g booster) is already used in the European Community, and the so-called "Trough test" according to UN Test S.1 is designed to assess if an ammonium nitrate fertilizer is capable of undergoing self-sustaining decomposition.

Proposals

1. Due to their specific properties and to facilitate resonably adjuged regulation, a globally harmonized classification and labelling system should regard ammonium nitrate and ammonium nitrate fertilizers as a special group of substances.

2. The detonation test according to Directive 87/94/EEC is proposed as a suitable method for determing whether or not certain explosive properties are to be considered.

3. UN Test S.1 is proposed for the determination of the self-sustaining exothermic decomposition of fertilizers containing nitrates.